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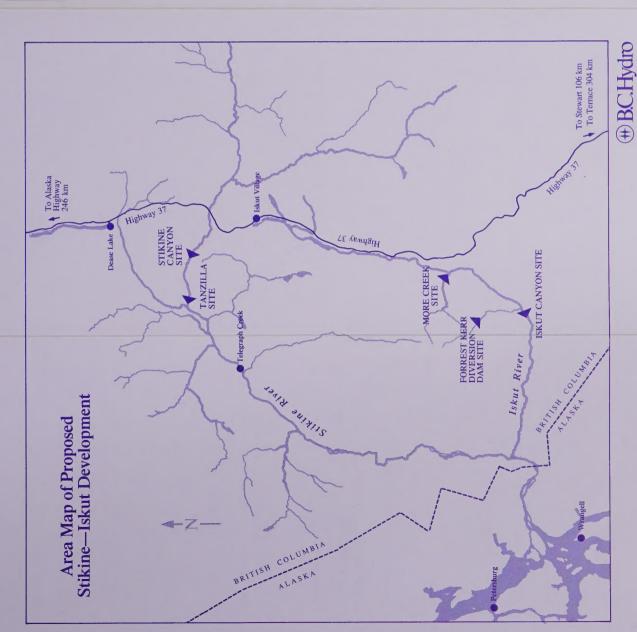
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B.C. Hydro's proposed about

Stilkine-Iskut

hydroelectric development



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POLARPAM

# THE STIKINE-ISKUT DEVELOPMENT

B.C. Hydro is studying possible development of the Stikine and Iskut rivers in northwestern B.C. for production of electricity. Estimates of future provincial electricity requirements indicate that this development may be needed by the mid-1990s.

The Stikine River rises on the Stikine Plateau in northeastem British Columbia, flows a distance of some 500 kilometres (km) (300 miles) to the B.C.-Alaska border and further 35 km (20 miles) through the Alaska panhandle to the delta near Wrangell, Alaska. The Iskut River is the largest tributary of the Stikine and flows into it approximately 11 km (7 miles) upstream from the B.C.-Alaska border (see map). Because the Coast Range, which provides most of the inflow to the rivers, is downstream from the proposed dams, the effects of the development on the flows at the estuary should be relatively minor.

The hydroelectric development would add a generating capacity of about 2800 megawatts (MW) and an annual energy capability averaging about 15 000 gigawatt-hours (GW.h) to Hydro's integrated system. This is comparable to approximately 32 per cent of Hydro's existing generating capacity.

The development would include two projects on the Stikine and two in the Iskut basin:

- the Stikine Canyon project which would include a dam 270 metres (m) (885 feet) high with an installed capacity of 915 MW and a reservoir 103 km (64 miles) long and 12 700 hectares (ha) (31,000 acres) in area;
- the Tanzilla project which would include a dam 193 m (663 feet) high with an installed capacity of 915 MW and a reservoir 25 km (15 miles) long and 900 ha (2,200 acres) in area;

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- the Iskut Canyon project which would include a dam 158 m (518 feet) high with an installed capacity of 780 MW and a reservoir 25 m (15 miles) long and 3800 ha (9,400 acres) in area, and
- the More Creek project which would include a dam 135 m (442 feet) high with an installed capacity of 155 MW and a reservoir 25 km (15 miles) long and 4100 ha (10,000 acres) in area.

In addition, a dam about 37 m (121 feet) high would be required to divert Forrest Kerr Creek into the headwaters of More Creek.

# ENVIRONMENTAL STUDIES

B.C. Hydro is carrying out environmental overview studies on wildlife, fisheries, forestry, terrain, climate, heritage sites, the Stikine estuary, recreation and tourism, and socioeconomic effects. Studies to date indicate the following likely effects:

Wildlife — flooding would eliminate some wildlife habitat on the Stikine and Iskut rivers, although in most cases alternative habitat is available upstream and downstream from the development.

Fish — the proposed damsites would be above salmon migration runs; none of the reservoirs would block salmon migration and impacts on salmon would be limited to those caused by flow regulation changes in water quantity or quality.

Forestry — forestry resources would be affected only slightly by the development; timber removed from the area prior to flooding would account for only three per cent of the allowable annual cut in the region.

Grand Canyon — the proposed development would partially flood the Grand Canyon and lessen its scenic value; however, the development would also make the Canyon more accessible to the general public.

#### PROJECT APPROVAL

Before Hydro could build the Stikine-Iskut hydroelectric development, an energy project certificate would have to be obtained from the provincial government under the provisions of the Utilities Commission Act. The Act provides for an extensive review procedure, which may include a public hearing before the B.C. Utilities Commission. Various other provincial and federal permits, approvals and licences would be required. International implications would have to be addressed.

Hydro has not yet decided whether to seek regulatory approval to proceed with the development as this will depend upon estimates of long-term provincial electric energy needs and the availability of alternative methods to meet the need.

It is estimated that engineering and environmental studies required for a decision to seek regulatory approval will not be complete before 1984. This means that the earliest possible in-service date for the first Stikine-Iskut project would be about 1994.

However, the actual in-service date would depend on the estimated need for new electrical energy. These estimates are reviewed regularly and updated at least once a year.

#### INFORMATION PROGRAM

Hydro is continuing its information and consultation program with local and regional governments and special interest groups. Call Community Relations in Vancouver at (112) 663-2405 (collect) if you would like further information.